

PATENT SPECIFICATION

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COMPLETE SPECIFICATION

DRAWINGS ATTACHED

Improvements relating to a Measuring Means for the Human Form

WE, WILLERBY & COMPANY LIMITED, a Company registered under the laws of Great Britain, of Pembury Works, Pembury Grove, London, E.S., formerly of 110-113 Tottenham Court Road, London, W.1., do hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a measuring means for use by tailors in measuring the human body preparatory to making suits and other clothes.

In the past tailor's cutters have used patterns for cutting out material and have modified the exact outline to be cut in accordance with measurements and instructions given by the tailor. Thus in measuring a customer it has been necessary for a tailor's fitter correctly to record a number of measurements and also to be able to assess other characteristics of his customer dependent upon general build and stance. Such characteristics have, for example included the degree to which the customer is round-shouldered and hollow-backed and assessment of these has required skill and experience.

The number of tailors' fitters having the requisite skill and experience is lessening and considerable wastage of material and time can occur if incorrect instructions are sent to the cutter. It is therefore an object of the present invention to provide an improved measuring machine which is particularly useful in obtaining measurements relating to those characteristics of the human form which in the past have not been measured accurately but for which reliance has been placed upon the tailor's fitter's skill and experience.

According to the present invention there

[Price 4s. 6d.]

is provided measuring means for the human form comprising a vertically movable yoke having two oppositely disposed arms capable of measuring the degree of inclination of the shoulders of a person standing against the yoke, said arms being pivotally secured at their inner ends to a part of the yoke fixed in the horizontal plane and formed with upwardly directed curved outer ends carrying graduations and engageable with hand operable wheels carried by the

Preferably, the measuring means provides an adjustable rest against which the person's shoulder-blades may be rested in order accurately to locate the person relative to the machine. The waist indicator may be movable horizontally relative to the rest in order to obtain an assessment of the degree to which the person is hollow-backed. Advantageously, the yoke is movable horizontally relative to the rest in order to obtain an assessment of the degree to which the person is round-shouldered.

One embodiment of the invention will now be described by way of example with reference to the single figure of the accompanying drawing which shows a measuring means in front elevation.

Referring to the drawing, the measuring means comprises a base 1 formed at one end with an upwardly extending boss 2 which receives and holds the lower end of a vertical column 3 of circular cross-sectional shape. The boss 2 is formed with a forwardly projecting part, 4.

At its rear side the column 3 is provided with a longitudinally extending rack 5 from its upper end to a position short of its lower end and four blocks 6, 7, 8, and 9 are slidable on the column and are provided with worm mechanism (not shown) engageable with the rack 5 so that the

blocks are movable along the column 3 upon rotation of hand wheels 10, 11, 12, and 13.

The block 7 is formed with a horizontally extending aperture (not shown) to receive a rack 14 engageable with a worm wheel (not shown) carried by the block which is rotatable by a hand wheel 15 so that the rack 14 is movable horizontally relative to the block. At its outer end the rack 14 carries a yoke indicated generally at 16 comprising a transverse bar 17 disposed symmetrically of the column 3 and formed with thickened ends 18 and 19 each having inwardly facing grooves for receiving the curved ends 20 and 21 of arms 22 and 23, the inner ends of which are pivoted at 24 and 25 to the bar 17. The lower edges of the arms 22 and 23 are respectively provided with plates 26 and 27 and the outer edges of the ends 20 and 21 are chamfered as at 28 and 29 to be engageable by friction wheels 30 and 31 journaled in the ends 18 and 19 and rotatable by hand wheels 32 and 33. The ends 20 and 21 of the arms 22 and 23 are graduated to be read against reference lines 34 and 35 on the ends 18 and 19. A plate 36 concavely curved along a horizontal axis away from the column 3 is secured centrally of the bar 17.

A calibrated rod 37 extends downwardly from the block 7 and freely through a suitable aperture (not shown) in the block 9. This block 9 also incorporates a worm mechanism (not shown) operable by a hand wheel 38 to engage with a horizontally movable rack 39 which carries at its outer end a plate 40 similar to the plate 36. The mechanism of the block 9 and plate 40 constitutes a waist indicator.

The block 8 carries a transverse flat plate 41 at a fixed horizontal distance from the column 3. The block 6 carries a forwardly projecting peg 42.

In operation a person to be measured stands on the base 1 with his back to the column 3 and the part 4 of the boss 2 is used to locate the person's feet accurately. The block 8 is slid along the column 3 under the action of the hand wheel 13 and its associated worm mechanism until the person's shoulder blades rest against the plate 41. This ensures so far as possible that each person to be measured adopts the same relative stance to the machine.

The block 7 is then slid along the column 3 by operation of its hand wheel 11 until the plate 36 of the yoke 16 is at the level of the base of the person's neck. The hand wheel 15 is then operated to move the yoke horizontally until the plate 36 engages the person, the movement of the rack 14 being an indication of the extent to which a person is round-shouldered and to this end the

rack 14 may be suitably calibrated.

The hand wheels 32 and 33 are then operated to pivot the arms 22 and 23 until the plates 26 and 27 carried by the latter engage the tops of the person's shoulders in order to provide an indication of the degree of slope of each shoulder separately. This is indicated by the calibrations on the ends 20 and 21.

At the same time the block 9 is slid along the column 3 until it is opposite the waist of the person and the hand wheel 38 is operated to move the plate 40 into engagement with the rear part of the person's waist, the extent of movement of the rack 39 providing an indication of the degree to which the person is hollow-backed and to this end the rack 39 may be conveniently calibrated. In addition the rod 37 may provide the measurement of the vertical distance between the neck and waist lines of the person being measured.

The block 6 is provided as an optional feature and may be used to measure a person's height.

It is also convenient to have the column 3 calibrated from the top of the base 1 so that other vertical measurements can be provided by the machine and it will also be appreciated that additional blocks could be mounted on the column for other purposes.

WHAT WE CLAIM IS:—

1. Measuring means for the human form comprising a vertically movable yoke having two oppositely disposed arms capable of measuring the degree of inclination of the shoulders of a person standing against the yoke, said arms being pivotally secured at their inner ends to a part of the yoke fixed in the horizontal plane and formed with upwardly directed curved outer ends carrying graduations and engageable with hand operable wheels carried by the yoke.

2. Measuring means for the human form according to claim 1 wherein an adjustable rest is provided against which the person's shoulder blades are rested in order accurately to locate the person relative to the machine.

3. Measuring means for the human form according to either of the preceding claims in which the waist indicator is movable horizontally relative to the rest in order to obtain an assessment of the degree to which the person is hollow-backed.

4. Measuring means for the human form according to claim 1 in which the yoke is movable horizontally relative to the rest in order to obtain an assessment of the degree to which the person is round shouldered.

5. Measuring means for the human form according to claim 1 in which a vertically movable waist indicator is provided capable

of being set level with the person's waist-line and means are provided for measuring the vertical distance between the waist-line and a predetermined part of the person adjacent the yoke.

5 6. Measuring means for the human form according to claim 5 in which the predetermined part is that part of the shoulders where the base of the collar of a garment would rest.

10 7. Measuring means for the human form according to any one of the preceding claims which comprises a base and a column extending upwardly away therefrom, the yoke, the waist indicator and the rest being respectively mounted on blocks slidable along the column.

15 8. Measuring means for the human form according to claim 7 in which the column is provided with a longitudinally

extending rack engageable by worm wheels supported on the blocks and rotatable by hand wheels.

9. Measuring means for the human form according to claim 7 or claim 8 in which the yoke and the waist indicators are respectively carried on horizontal racks engageable with corresponding worm wheels on the blocks and rotatable by hand wheels.

10. Measuring means for the human form substantially as herein described with reference to the single figure of the accompanying drawing.

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I SHEET

This drawing is a reproduction of the Original on a reduced scale.

